

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/932,678

DATE: 09/06/2001

TIME: 13:50:45

Input Set : A:\14538a51.app

Output Set: N:\CRF3\09062001\I932678.raw

ENTERED

3 <110> APPLICANT: Reeder, Ronald H.
 4 Moorefield, Beth
 5 Greene, Elizabeth A.
 7 <120> TITLE OF INVENTION: HUMAN RRN3 AND COMPOSITIONS AND METHODS RELATING
 8 THERETO
 10 <130> FILE REFERENCE: 14538A-005810US
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/932,678
 13 <141> CURRENT FILING DATE: 2001-08-16
 15 <150> PRIOR APPLICATION NUMBER: 60/225,893
 16 <151> PRIOR FILING DATE: 2000-08-16
 18 <160> NUMBER OF SEQ ID NOS: 8
 20 <170> SOFTWARE: PatentIn Ver. 2.1
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 2068
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Homo sapiens
 27 <400> SEQUENCE: 1
 28 acagaggctg tggctggaag gagctgggca tccggcctga ggcgagcgcg tcgcgttagt 60
 29 tcggcccaat ggcggcacgc ctgcttcaca cgcgtttgcc gggagatgcg gccgcttcgt 120
 30 cctctgcagt taagaagctg ggcgcgctga ggactgggat ttcaaatacg cgtgcattag 180
 31 agaatgactt tttcaattct cccccaagaa aaactgttcg gtttggtgga actgtgacag 240
 32 aagtcttgct gaagtacaaa aagggtgaaa caaatgactt tgagttgttg aagaaccagc 300
 33 tgttagatcc agacataaag gatgaccaga tcatcaactg gctgctagaa ttccgttctt 360
 34 ctatcatgta ctgacaaaa gactttgagc aacttatcag tattatatta agattgcctt 420
 35 ggttgaatag aagtcaaaac gtagtggaag agtatttggc tttcttgggt aatcttgat 480
 36 cagcacagac tgttttcttc agaccgtgtc tcagcatgat tgcttcccat tttgtgcctc 540
 37 cccgagtgat cattaaggaa ggcgatgtag atgtttcaga ttctgatgat gaagatgata 600
 38 atcttctctg aaattttgac acatgtcaca gagccttgca aataatagca agatatgtac 660
 39 catcgacacc gtggtttctc atgccaatat tgggtgaaaa atttccattt gttcgaaaaat 720
 40 cagagagaac actggaatgt tacgttcata acttactaag gattagtgtat tattttccaa 780
 41 ccttgaggca tgaaattctg gagcttatta ttgaaaaact actcaagttg gatgtgaatg 840
 42 catcccggca gggatttgaa gatgctgaag aaacagcaac tcaaacttgt ggtgggacag 900
 43 attccacgga aggattgttt aatatggatg aagatgaaga aactgaacat gaaacaaagg 960
 44 ctggtctctga acggctcgac cagatgggtg atcctgtagc cgagcgctg gacatcctga 1020
 45 tgtcttttgg tttgtcctac atgaaggatg tctgctatgt agatggtaag gttgataacg 1080
 46 gcaaaacaaa ggcatttatat cgcgacctga taaacatctt tgacaaactc ctggttgccca 1140
 47 cccatgcctc ctgccatgta cagtttttca tgttttacct ctgtagtttc aaattgggat 1200
 48 tcgcagaggc atttttgga catctctgga aaaaattgca ggacccaagt aatcctgcca 1260
 49 tcatcaggca ggcgtctgga aattatattg gaagcttttt ggcaagagct aaattttatt 1320
 50 ctcttattac tgtaaaatca tgcctagatc ttttggttaa ctggctgcac atatacotta 1380
 51 ataaccagga ttccgggaaca aaggcattct gcgatgttgc totccatgga ccattttact 1440
 52 cagcctgcca agctgtgttc tacacctttg tttttagaca caagcagctt ttgagcggaa 1500
 53 acctgaaaga aggtttgcag tatcttcaga gtctgaattt tgagcggata gtgatgagcc 1560
 54 agctaaatcc cctgaagatt tgccctgcct cagtgggttaa cttttttgct gcaatcacia 1620
 55 ataagtacca gctcgtcttc tgctacacca tcattgagag gaacaatgc cagatgctgc 1680
 56 cagtcattag gagtaccgct ggaggagact cagtgcagat ctgcacaaac ccgctggaca 1740
 57 ccttcttccc ctttgatccc tgtgtgctga agaggtcaaa gaaattcatt gatcctattt 1800

RAW SEQUENCE LISTING

DATE: 09/06/2001

PATENT APPLICATION: US/09/932,678

TIME: 13:50:45

Input Set : A:\14538a51.app

Output Set: N:\CRF3\09062001\I932678.raw

```

58 atcaggatatg ggaagacatg agtgctgaag agctacagga gttcaagaaa cccatgaaaa 1860
59 aggacatagt ggaagatgaa gatgatgact ttctgaaagg cgaagtgcc cagaatgata 1920
60 ccgtgattgg gatcacacca agtcctttg acacgcattt ccgaagtcct tcaagtagtg 1980
61 tgggctcccc acccgtgttg tacatgcaac ccagtcacct ctgacggcag aaatttgtga 2040
62 ctgagatgtg acatttggga tcccccat 2068
65 <210> SEQ ID NO: 2
66 <211> LENGTH: 651
67 <212> TYPE: PRT
68 <213> ORGANISM: Homo sapiens
70 <400> SEQUENCE: 2
71 Met Ala Ala Pro Leu Leu His Thr Arg Leu Pro Gly Asp Ala Ala Ala
72 1 5 10 15
74 Ser Ser Ser Ala Val Lys Lys Leu Gly Ala Ser Arg Thr Gly Ile Ser
75 20 25 30
77 Asn Met Arg Ala Leu Glu Asn Asp Phe Phe Asn Ser Pro Pro Arg Lys
78 35 40 45
80 Thr Val Arg Phe Gly Gly Thr Val Thr Glu Val Leu Leu Lys Tyr Lys
81 50 55 60
83 Lys Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp
84 65 70 75 80
86 Pro Asp Ile Lys Asp Asp Gln Ile Ile Asn Trp Leu Leu Glu Phe Arg
87 85 90 95
89 Ser Ser Ile Met Tyr Leu Thr Lys Asp Phe Glu Gln Leu Ile Ser Ile
90 100 105 110
92 Ile Leu Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu Glu
93 115 120 125
95 Tyr Leu Ala Phe Leu Gly Asn Leu Val Ser Ala Gln Thr Val Phe Leu
96 130 135 140
98 Arg Pro Cys Leu Ser Met Ile Ala Ser His Phe Val Pro Pro Arg Val
99 145 150 155 160
101 Ile Ile Lys Glu Gly Asp Val Asp Val Ser Asp Ser Asp Asp Glu Asp
102 165 170 175
104 Asp Asn Leu Pro Ala Asn Phe Asp Thr Cys His Arg Ala Leu Gln Ile
105 180 185 190
107 Ile Ala Arg Tyr Val Pro Ser Thr Pro Trp Phe Leu Met Pro Ile Leu
108 195 200 205
110 Val Glu Lys Phe Pro Phe Val Arg Lys Ser Glu Arg Thr Leu Glu Cys
111 210 215 220
113 Tyr Val His Asn Leu Leu Arg Ile Ser Val Tyr Phe Pro Thr Leu Arg
114 225 230 235 240
116 His Glu Ile Leu Glu Leu Ile Ile Glu Lys Leu Leu Lys Leu Asp Val
117 245 250 255
119 Asn Ala Ser Arg Gln Gly Ile Glu Asp Ala Glu Glu Thr Ala Thr Gln
120 260 265 270
122 Thr Cys Gly Gly Thr Asp Ser Thr Glu Gly Leu Phe Asn Met Asp Glu
123 275 280 285
125 Asp Glu Glu Thr Glu His Glu Thr Lys Ala Gly Pro Glu Arg Leu Asp
126 290 295 300
128 Gln Met Val His Pro Val Ala Glu Arg Leu Asp Ile Leu Met Ser Leu

```

RAW SEQUENCE LISTING

DATE: 09/06/2001

PATENT APPLICATION: US/09/932,678

TIME: 13:50:45

Input Set : A:\14538a51.app

Output Set: N:\CRF3\09062001\I932678.raw

```

129 305          310          315          320
131 Val Leu Ser Tyr Met Lys Asp Val Cys Tyr Val Asp Gly Lys Val Asp
132          325          330          335
134 Asn Gly Lys Thr Lys Asp Leu Tyr Arg Asp Leu Ile Asn Ile Phe Asp
135          340          345          350
137 Lys Leu Leu Leu Pro Thr His Ala Ser Cys His Val Gln Phe Phe Met
138          355          360          365
140 Phe Tyr Leu Cys Ser Phe Lys Leu Gly Phe Ala Glu Ala Phe Leu Glu
141          370          375          380
143 His Leu Trp Lys Lys Leu Gln Asp Pro Ser Asn Pro Ala Ile Ile Arg
144 385          390          395          400
146 Gln Ala Ala Gly Asn Tyr Ile Gly Ser Phe Leu Ala Arg Ala Lys Phe
147          405          410          415
149 Ile Pro Leu Ile Thr Val Lys Ser Cys Leu Asp Leu Leu Val Asn Trp
150          420          425          430
152 Leu His Ile Tyr Leu Asn Asn Gln Asp Ser Gly Thr Lys Ala Phe Cys
153          435          440          445
155 Asp Val Ala Leu His Gly Pro Phe Tyr Ser Ala Cys Gln Ala Val Phe
156          450          455          460
158 Tyr Thr Phe Val Phe Arg His Lys Gln Leu Leu Ser Gly Asn Leu Lys
159 465          470          475          480
161 Glu Gly Leu Gln Tyr Leu Gln Ser Leu Asn Phe Glu Arg Ile Val Met
162          485          490          495
164 Ser Gln Leu Asn Pro Leu Lys Ile Cys Leu Pro Ser Val Val Asn Phe
165          500          505          510
167 Phe Ala Ala Ile Thr Asn Lys Tyr Gln Leu Val Phe Cys Tyr Thr Ile
168          515          520          525
170 Ile Glu Arg Asn Asn Arg Gln Met Leu Pro Val Ile Arg Ser Thr Ala
171          530          535          540
173 Gly Gly Asp Ser Val Gln Ile Cys Thr Asn Pro Leu Asp Thr Phe Phe
174 545          550          555          560
176 Pro Phe Asp Pro Cys Val Leu Lys Arg Ser Lys Lys Phe Ile Asp Pro
177          565          570          575
179 Ile Tyr Gln Val Trp Glu Asp Met Ser Ala Glu Glu Leu Gln Glu Phe
180          580          585          590
182 Lys Lys Pro Met Lys Lys Asp Ile Val Glu Asp Glu Asp Asp Asp Phe
183          595          600          605
185 Leu Lys Gly Glu Val Pro Gln Asn Asp Thr Val Ile Gly Ile Thr Pro
186          610          615          620
188 Ser Ser Phe Asp Thr His Phe Arg Ser Pro Ser Ser Ser Val Gly Ser
189 625          630          635          640
191 Pro Pro Val Leu Tyr Met Gln Pro Ser Pro Leu
192          645          650
195 <210> SEQ ID NO: 3
196 <211> LENGTH: 28
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer

```

RAW SEQUENCE LISTING

DATE: 09/06/2001

PATENT APPLICATION: US/09/932,678

TIME: 13:50:45

Input Set : A:\14538a51.app

Output Set: N:\CRF3\09062001\I932678.raw

203 <400> SEQUENCE: 3
204 tgattgcagc aaaaaagtta accactga 28
207 <210> SEQ ID NO: 4
208 <211> LENGTH: 28
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer
215 <400> SEQUENCE: 4
216 ctatatcgcg acctgataaa catctttg 28
219 <210> SEQ ID NO: 5
220 <211> LENGTH: 28
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer
227 <400> SEQUENCE: 5
228 caaagatggtt tatcagggtcg cgatatag 28
231 <210> SEQ ID NO: 6
232 <211> LENGTH: 34
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer
239 <400> SEQUENCE: 6
240 ggaagctttt tggcaagagc taaatttatt cctc 34
243 <210> SEQ ID NO: 7
244 <211> LENGTH: 41
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer
251 <400> SEQUENCE: 7
252 gcggatcctc attcagcact catgtcttcc catacctgat a 41
255 <210> SEQ ID NO: 8
256 <211> LENGTH: 39
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR Primer
263 <400> SEQUENCE: 8
264 aacagtctgt gctgatacag gattaccaag aaaagccaa 39

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/932,678

DATE: 09/06/2001

TIME: 13:50:46

Input Set : A:\14538a51.app

Output Set: N:\CRF3\09062001\I932678.raw

L:12 M:270 C: Current Application Number differs, Wrong Format